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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/531,135	03/17/2000	Tohru Watanabe	005586-20035	5243
26021	7590	05/06/2004	EXAMINER	
HOGAN & HARTSON L.L.P. 500 S. GRAND AVENUE SUITE 1900 LOS ANGELES, CA 90071-2611			TILLERY, RASHAWN N	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/531,135

Applicant(s)

WATANABE, TOHRU

Examiner

Rashawn N Tillery

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-6 is/are allowed.
- 6) ☒ Claim(s) 1 and 7 is/are rejected.
- 7) ☒ Claim(s) 2,3 and 8-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed February 24, 2004 have been fully considered but they are not persuasive.

Regarding Applicant's arguments concerning Takahashi failing to disclose the claimed signal processing circuit, the examiner respectfully disagrees. Takahashi teaches combining the signals of an odd field and an even field to compose a final image signal. Applicant's claim language does not specify how the image signals are added; only that an image signal is generated by adding a first output and a second output.

Therefore, the rejection is maintained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi et al (US5638118).

Regarding claims 1 and 7, Takahashi discloses, in figure 1, a solid-state image pickup apparatus comprising:

a solid-state image pickup device (103) in which a first light receiving pixel (odd) is disposed in a plurality of lines in one-line units, and a second light receiving pixel (even) capable of being driven independently from the first light receiving pixel is disposed in at least one-line units between first light receiving pixels of the plurality of lines;

a drive circuit (105) for driving the first and second light receiving pixels of the solid-state image pickup device and accumulating information charges at mutually different times between first light receiving pixel and second light receiving pixel, as well as transferring and outputting information charges accumulated in the first and second light receiving pixels independently of each other (see col. 5, lines 1-27);

a timing control circuit (108) for respectively setting the storage time of information charges at the first light receiving pixel and the storage time of information charges at the second light receiving pixel of the solid-state image pickup device (see col. 5, line 6); and

a signal processing circuit for generating an image signal by adding a first output corresponding to the first light receiving pixel and a second output corresponding to the second light receiving pixel of the solid-state image pickup device (see col. 6, lines 21-52).

Allowable Subject Matter

1. Claims 4-6 are allowed.

Regarding claim 4, the prior art does not teach or fairly suggest a solid-state image pickup apparatus comprising a solid-state image pickup device, a drive circuit, a timing control circuit and a signal processing circuit, wherein

first and second light receiving pixels are capable of being driven independently; first and second light receiving pixels accumulate information charges at mutually different times; and the signal processing circuit performs calculations of a smear quantity on the basis of a ratio of the respective accumulation times of the information charges.

2. Claims 2-3 and 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 2 and 8, the prior art does not teach or fairly suggest a solid-state image pickup apparatus comprising a solid-state image pickup device, a drive circuit, a timing control circuit and a signal processing circuit, wherein

first and second light receiving pixels are capable of being driven independently; first and second light receiving pixels accumulate information charges at mutually different times; and the signal processing circuit calculates vertical transfer smear component on the basis of a ratio of the respective accumulation times of the

information charges and a difference of the outputs of the first and second light receiving pixels.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

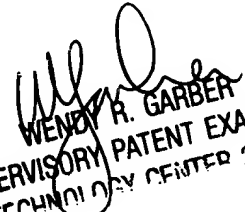
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rashawn N Tillery whose telephone number is 703-305-0627. The examiner can normally be reached on 9AM-6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RNT


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